

BSSH Claribone Educational Grant Report

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Dear Committee,

Since receiving the BSSH Educational Grant, we at Claribone have been making terrific strides in the research and development of our hand fracture simulators. We are incredibly grateful for BSSH's support, which has allowed us to continue work on our simulators.

With the grant funds, we purchased a Formlabs Form 3 SLA 3D printer. This is one of the foremost benchtop SLA 3D printers, capable of producing high-volume, high-quality SLA 3D printouts, allowing us to continue to produce our metacarpals for the purposes of hand fracture fixation training.

One of the challenges ahead of purchasing this printer was of finding appropriate storage space, to both accommodate the printer and for post-print processing.

I approached a team I had worked previously with at the Charles Wolfson Centre (CWC), based at the Royal Free Hospital. The CWC is a research and educational institute which hosts MSc research students as well as surgical skills workshops. After initial discussions, the CWC team agreed to provide Claribone with bench space for the BSSH-funded 3D printer, in exchange for collaborative educational and surgical skills opportunities, which the Claribone team would help facilitate. This is a natural synergism which we at Claribone were delighted to enter into, and which has scope to help engage and involve CWC students and course participants in educational projects, notably using 3D-printed devices produced by Claribone.

The CWC has ongoing 3D printing projects which, via our collaboration, Claribone has been able to take advantage of by sharing CWC disposables, bench space and post-processing resources. We have taken advantage of these efficiencies, which has given Claribone additional funds, by purchasing a Bambu Lab X1 FDM 3D printer. This FDM printer allows for far quicker 3D printouts. This allows for more rapid prototyping and testing of new designs. So far, we have been using this to design and test mounts to securely hold our metacarpals, reducing the risk of hand injury whilst being used in a course environment.

Since being awarded the BSSH Grant, Claribone has presented our project and research at the BAPRAS Interface conference in Newcastle, the BOTA Annual Congress in Edinburgh, as well as at various medical school society talks and conferences, most recently at Kings College London and University College London. We have also entered into a collaboration with Organa, an organisation which builds high-fidelity soft tissues. We are working on producing a hand-model surgical simulator which encompasses skin opening, digital nerve repair, and fracture repair, all in one device. We look forward to presenting the results of our testing in due course.

Once again I am grateful for the BSSH Educational Grant which was awarded to Claribone, and we look forward to continuing to build on the work we have undertaken so far.

Yours sincerely,



Mr Leo Gundle MRCS

Founder and CEO of Claribone, on behalf of Melanie Moffat, Alfie Owens, Robert Gregson and Holly Sheldon

